

WE CLAIM:

1. In a computer system, a method for providing improved real time command execution in a non real time operating system, comprising:
  - executing at least one application at a user mode level of said computer system;
  - providing from said at least one application a sequence of asynchronous commands to be executed in real time;
  - storing said sequence of asynchronous commands in a command queue to be accessible from a privileged mode level of said computing system; and
  - implementing one at a time each of said stored asynchronous commands.
2. The method as claimed in claim 1, wherein a plurality of sequences of asynchronous commands is provided, each sequence being related to a corresponding application thread, further wherein said storing of a sequence of asynchronous commands is performed in a corresponding queue from the execution of said corresponding application thread.
3. The method as claimed in claim 1, wherein a synchronous command is added to said sequence of asynchronous commands, said application sleeping until said synchronous command is executed.
4. The method as claimed in claim 2, wherein a synchronous command is added to said sequence of

asynchronous commands, said application thread sleeping until said synchronous command is executed.

5. The method as claimed in claim 1, wherein said non real time operating system is Microsoft Windows and said step of storing is performed through execution of a driver routine from a DLL file.
6. The method as claimed in claim 5, wherein said step of providing involves said commands being pushed one at a time into said sequence through a system call.
7. The method as claimed in claim 1, wherein one of said stored commands is a branch command to control the order of execution of said stored commands.
8. The method as claimed in claim 1, wherein said step of implementing is done at a different privileged mode level.
9. The method as claimed in claim 8, wherein said different privileged level is that of the Interrupt Service Routine, whereby the delay between the execution of successive commands is minimized.
10. The method as claimed in claim 9, wherein said non real-time operating system is Microsoft Windows.
11. The method as claimed in claim 1, wherein said sequence of commands process the same data set.
12. The method as claimed in claim 11, wherein said same data set is a video camera image being captured and processed in real-time.

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13. The method as claimed in claim 1, wherein said step of providing involves said commands being pushed one at a time into said sequence through a system call.
14. The method as claimed in claim 1, wherein said step of storing is performed through execution of a driver routine from a system file.